

DETAILED ACTION

Status of the Claims

1. Claims 34-45 are added, independent claim 17 is amended, claims 17-18, 22-28, 32 and 34-45 are pending in the application and are examined on the merits.

Claim Objections

2. Claim 43 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claims to place the claim in proper dependent form, or rewrite the claim in independent form.
3. Claim 43 depends directly upon independent claim 35; claim 35 recites the ink comprising "a styrene-acrylic binder", claim 43 recites all that is in claim 35 but instead of acrylic binder, claim 43 recites just "a binder" which is the broader recitation, and as such claim 43 fails to further limit claim 35. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 17 recites an activated carbon ink “consisting of” activated carbon particles and at least one binder, the recitation of the ink “consisting of... at least one binder” renders it unclear whether other binders are included additional ingredients; and because binders would materially change the characteristics of the composition, therefore the recitation of “and at least one binder” is not in accordance with the transitional phrase “consisting of”.

7. ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 17-18, 22-27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falat et al (US 6,639,004) as evidenced by Parks (US 5,693,385) in view of Dudley (US 3,340,875).

11. **With respect to claim 17**, Falat discloses a personal care product (col. 1, line 29, lines 59-60) comprising an odor sorbent substrate (col. 1, lines 47-50) having a surface that is coated

with a durable activated carbon ink consisting of activated carbon particles and at least one binder (col. 1, lines 53-46 and column 2, lines 9-10 and lines 59-65; Table 1, col. 3). Falat discloses durable activated carbon ink such as NUCCHAR sold by MeadWestvaco Corporation of New York, N.Y., USA, disclosed in the instant Specification at paragraph [0022] as a suitable embodiment of the instant claimed durable activated carbon ink. Falat, at col. 1, line 56 disclosing NUCCHAR is used to make carbon ink, as evidenced by Parks. Parks is used as evidence and is not used to reject any claims in this Office action. Parks, at column 2, lines 7-15 and lines 44-45, teaches that NUCCHAR sold by MeadWestvaco is known in the art for comprising carbon ink. Thus Falat discloses an odor sorbent substrate having a surface coated with durable activated carbon ink, said activated carbon ink consisting essentially of activated carbon particles and at least one binder (Table 1, col 3).

12. Falat discloses the claimed invention except for the substrate is positioned between a liquid impervious baffle and an absorbent core and wrapped around the absorbent core in a manner that one or more sides are left open. Falat, at column 1, line 29 and lines 59-60, and column 4, lines 4-7, provides motivation to use the odor sorbent substrates to control odor in multiple products including, *inter alia*, diaper products, liners, wrappers and uses wherein odor control is desired, thus providing motivation for such. Dudley, at column 1, lines 10-12, provides motivation for odor control in personal care products. Dudley discloses a personal care product 1 comprising: a liquid impermeable baffle 9 (col. 2, lines 43-46); a liquid pervious liner 5; an absorbent core 8 positioned between the baffle 9 and the liner 5; and an odor sorbent positioned between the baffle and absorbent core and wrapped around the absorbent core in a

manner that one or more sides are left open, col. 2, lines 54-56, teaching the odor sorbent is in a U-shaped pattern around the outer periphery of the core such that the top side is left open.

13. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the odor sorbent of Falat in the product of Dudley, since Dudley states, at column 1, lines 32-39, col. 2, lines 53-58, that the benefit of such is that this permits the odor sorbent to be shielded from body contact and dispersing it in a U-shaped pattern permits it to absorb odors within the product.

14. **With respect to claim 18**, Falat discloses the personal care product can be selected from diapers (col. 1, line 29), see also col. 1, lines 60 disclosing liner elements and wrappers, which are known to be used in personal care products, see col. 4, line 7, teaching using the substrate for odorous waste products, which diapers are known to comprise. Thus Falat contemplates the substrate in many products which would include diapers. See also Dudley, teaching adult incontinence and feminine hygiene products.

15. **With respect to claims 22-24**, Falat discloses the activated carbon particles (col. 1, line 55) are present in an amount of between about 2 and 80 wt. % of the substrate on a dry basis (col. 2, line 67 to col. 3, line 1), as recited in **claim 22**; about 5 and 75 wt. % (col. 3, line 3) as recited in **claim 23**; 10 and 30 wt. % (col. 2, line 67 to col. 3, line 1), as recited in **claim 24**.

16. **With respect to claim 25**, Falat discloses the substrate contains a film (col. 1, line 48) paper (col. 1, line 51) and combinations thereof (col 1, line 51-52).

17. **With respect to claim 26**, Falat discloses the claimed invention except for the substrate contains a wetlaid or airlaid paper web. Falat discloses paper (col. 1, lines 50-51) thus providing motivation for the broad genus of paper but does not disclose species such as wet-laid or air-laid.

18. The examiner notes that the manner in which the paper is formed, i.e. wet or air laid, is a product-by-process limitation drawn to the method of forming the paper. The claims are drawn to a product rather than methods of forming products. Even though the claim is limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113.

19. Falat discloses the substrate contains paper, thus disclosing the product; therefore the method of forming the paper does not lend additional patentable weight.

20. **With respect to claim 27**, Falat discloses the substrate contains a film (col. 2, lines 44-46, col. 1, lines 48-52).

21. **With respect to claim 32**, Falat discloses the ink is applied to the substrate as an aqueous solution (col. 2, lines 53-56).

22. **With respect to claim 34**, Falat discloses the activated carbon particles are present in the ink in a greater amount than the binder, see Table 1.

23. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Falat et al (US 6,639,004) in view of Dudley (US 3,340,875) and further in view of Hu et al (US 6,740,406 B2).

24. **With respect to claim 28**, Falat discloses the binder is a styrene-acrylic binder (column 2, line 47-48) teaching styrene acrylate binder. In the alternative, Falat teaches that styrene based binders lend themselves to aqueous binder systems, thus providing motivation for such. Hu, at column 10, line 9 teaches styrene-acrylic binders as useful for binding active carbon inks

to substrates. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the styrene-acrylic of Hu as binder of Falat since Hu states, at column 10, lines 3-8, that this is one of many suitable binders useful for binding carbon to substrates and any of which can be selected by one of ordinary skill in the art as desired.

25. Claims 35-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falat et al (US 6,639,004) in view of Dudley (US 3,340,875) and further in view of Hu et al (US 6,740,406 B2).

26. **With respect to claim 35**, Falat discloses a personal care product (col. 1, line 29, lines 59-60) comprising an odor sorbent substrate (col. 1, lines 47-50) having a surface that is coated with a durable activated carbon ink consisting of activated carbon particles and at least one binder (col. 1, lines 53-46 and column 2, lines 9-10 and lines 59-65; Table 1, col. 3). Falat discloses durable activated carbon ink such as NUCHAR sold by MeadWestvaco Corporation of New York, N.Y., USA, disclosed in the instant Specification at paragraph [0022] as a suitable embodiment of the instant claimed durable activated carbon ink. Falat, at col. 1, line 56 disclosing NUCHAR is used to make carbon ink, as evidenced by Parks. Parks is used as evidence and is not used to reject any claims in this Office action. Parks, at column 2, lines 7-15 and lines 44-45, teaches that NUCHAR sold by MeadWestvaco is known in the art for comprising carbon ink. Thus Falat discloses an odor sorbent substrate having a surface coated with durable activated carbon ink, said activated carbon ink consisting essentially of activated carbon particles and at least one binder (Table 1, col 3).

27. Falat discloses the claimed invention except for the substrate is positioned between a liquid impervious baffle and an absorbent core and wrapped around the absorbent core in a

manner that one or more sides are left open. Falat, at column 1, line 29 and lines 59-60, and column 4, lines 4-7, provides motivation to use the odor sorbent substrates to control odor in multiple products including, *inter alia*, diaper products, liners, wrappers and uses wherein odor control is desired, thus providing motivation for such. Dudley, at column 1, lines 10-12, provides motivation for odor control in personal care products. Dudley discloses a personal care product 1 comprising: a liquid impermeable baffle 9 (col. 2, lines 43-46); a liquid pervious liner 5; an absorbent core 8 positioned between the baffle 9 and the liner 5; and an odor sorbent positioned between the baffle and absorbent core and wrapped around the absorbent core in a manner that one or more sides are left open, col. 2, lines 54-56, teaching the odor sorbent is in a U-shaped pattern around the outer periphery of the core such that the top side is left open.

28. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the odor sorbent of Falat in the product of Dudley, since Dudley states, at column 1, lines 32-39, col. 2, lines 53-58, that the benefit of such is that this permits the odor sorbent to be shielded from body contact and dispersing it in a U-shaped pattern permits it to absorb odors within the product.

29. Falat discloses the binder is a styrene-acrylic binder (column 2, line 47-48) teaching styrene acrylate binder. In the alternative, Falat teaches that styrene based binders lend themselves to aqueous binder systems, thus providing motivation for such. Hu, at column 10, line 9 teaches styrene-acrylic binders as useful for binding active carbon inks to substrates. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the styrene-acrylic of Hu as binder of Falat since Hu states, at

column 10, lines 3-8, that this is one of many suitable binders useful for binding carbon to substrates and any of which can be selected by one of ordinary skill in the art as desired.

30. **With respect to claim 36**, Falat discloses the personal care product can be selected from diapers (col. 1, line 29), see also col. 1, lines 60 disclosing liner elements and wrappers, which are known to be used in personal care products, see col. 4, line 7, teaching using the substrate for odorous waste products, which diapers are known to comprise. Thus Falat contemplates the substrate in many products which would include diapers. See also Dudley, teaching adult incontinence and feminine hygiene products.

31. **With respect to claims 37-39**, Falat discloses the activated carbon particles (col. 1, line 55) are present in an amount of between about 2 and 80 wt. % of the substrate on a dry basis (col. 2, line 67 to col. 3, line 1), as recited in **claim 37**; about 5 and 75 wt. % (col. 3, line 3) as recited in **claim 38**; 10 and 30 wt. % (col. 2, line 67 to col. 3, line 1), as recited in **claim 39**.

32. **With respect to claim 40**, Falat discloses the substrate contains a film (col. 1, line 48) paper (col. 1, line 51) and combinations thereof (col 1, line 51-52).

33. **With respect to claim 41**, Falat discloses the claimed invention except for the substrate contains a wetlaid or airlaid paper web. Falat discloses paper (col. 1, lines 50-51) thus providing motivation for the broad genus of paper but does not disclose species such as wet-laid or air-laid.

34. The examiner notes that the manner in which the paper is formed, i.e. wet or air laid, is a product-by-process limitation drawn to the method of forming the paper. The claims are drawn to a product rather than methods of forming products. Even though the claim is limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the

product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113.

35. Falat discloses the substrate contains paper, thus disclosing the product, therefore the method of forming the paper does not lend additional patentable weight.

36. **With respect to claim 42**, Falat discloses the substrate contains a film (col. 2, lines 44-46, col. 1, lines 48-52).

37. **with respect to claim 43**, Falat discloses the ink consists of the activated carbon particles and the binder, see claim 17, Table 1.

38. **With respect to claim 44**, Falat discloses the activated carbon particles are present in the ink in a greater amount than the binder, see Table 1.

39. **With respect to claim 45**, Falat discloses the ink is applied to the substrate as an aqueous solution (col. 2, lines 53-56).

Response to Arguments

40. Applicant's arguments with respect to claims 17-18, 22-28 and 32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

41. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ginger T. Chapman whose telephone number is (571)272-4934. The examiner can normally be reached on Monday through Friday 9:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 3761
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